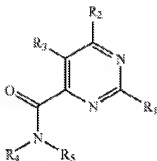


The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-18 (canceled)

19. (currently amended) A compound of formula (I)



R<sub>1</sub> is H or NH<sub>2</sub>;

R<sub>2</sub> is optionally substituted aryl or heteroaryl attached via a carbon atom;

R<sub>3</sub> is H; optionally substituted C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, or C<sub>3</sub>-C<sub>7</sub> cycloalkyl, halogen; OH or OR<sub>10</sub>;

R<sub>4</sub> is H, optionally substituted C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>3</sub>-C<sub>6</sub> alkenyl, C<sub>3</sub>-C<sub>6</sub> alkynyl, C<sub>3</sub>-C<sub>7</sub> cycloalkyl, aryl or heteroaryl,

R<sub>5</sub> is H or optionally substituted C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>1</sub>-C<sub>6</sub> alkynyl, or C<sub>3</sub>-C<sub>7</sub> cycloalkyl; or R<sub>4</sub> and R<sub>5</sub> together form a 5 or 6-membered heterocyclic ring;

R<sub>10</sub> is optionally substituted C<sub>1</sub>-C<sub>6</sub> alkyl;

or a pharmaceutically acceptable salt ~~or prodrug~~ thereof PROVIDED THAT: (a) R<sub>2</sub> is not an optionally substituted pyrazolopyridine ring system; and (b) when R<sub>1</sub> and R<sub>3</sub> are hydrogen and R<sub>2</sub> is unsubstituted phenyl then -NR<sub>4</sub>R<sub>5</sub> is not -NH<sub>2</sub>, NHCH<sub>3</sub> or N(CH<sub>3</sub>)<sub>2</sub>; and (c) when R<sub>1</sub> is -NH<sub>2</sub> and R<sub>3</sub> is hydrogen, then R<sub>2</sub> is not phenyl or phenyl substituted by one or more substituents selected from halogen, hydroxy, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, nitro, -NH<sub>2</sub>, or -NHCOCH<sub>3</sub>.

20. (original) A compound as claimed in claim 19 wherein R<sub>1</sub> is -NH<sub>2</sub> and R<sub>3</sub> is hydrogen, and

R<sub>2</sub> is substituted phenyl, the substituent(s) in the phenyl being selected from, methylenedioxy, C<sub>1</sub>-C<sub>6</sub> alkylthio, trifluoromethyl, trifluoromethoxy, nitrile (-CN), oxo, COR<sup>A</sup>, CONHR<sup>A</sup>, --CONR<sup>A</sup>R<sup>B</sup>, --NHR<sup>A</sup>, NR<sup>A</sup>R<sup>B</sup>, --NHCOR<sup>C</sup>, --NHCOOR<sup>A</sup>, --NR<sup>B</sup>COOR<sup>A</sup> wherein R<sup>A</sup> and R<sup>B</sup> are independently a C<sub>1</sub>-C<sub>6</sub> alkyl group and wherein R<sup>C</sup> is a C<sub>2</sub>-C<sub>6</sub> alkyl group.

Claims 21-22 (canceled)

23. (original) A pharmaceutical composition comprising a compound as claimed in claim 19 in combination with a pharmaceutically acceptable carrier or excipients.

Claims 24-41 (canceled)

42. (New) A compound as claimed in claim 19 wherein the compound is selected from the group consisting of:

- 2-Amino-N-(2-fluorobenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;
- 2-Amino-N-(3,4-difluorophenyl)-6-(2-furyl) pyrimidine-4-carboxamide;
- 2-Amino-6-(2-furyl)-N-(3-methoxybenzyl) pyrimidine-4-carboxamide;
- 2-Amino-6-(2-furyl)-N, N-dimethylpyrimidine-4-carboxamide;
- 1-(2-Amino-6-(2-furyl) pyrimidin-4-ylcarbonyl) piperidine;
- 2-Amino-6-(2-furyl)-N-(2-methoxybenzyl) pyrimidine-4-carboxamide;
- 2-Amino-6-(2-furyl)-N-(2-furylmethyl) pyrimidine-4-carboxamide;
- 2-Amino-6-(2-furyl) pyrimidine-4-carboxamide;
- 2-Amino-6-(2-furyl)-N-(4-dimethylaminobenzyl) pyrimidine-4-carboxamide;
- 2-Amino-6-(2-furyl)-N-(3-methylpyridin-2-ylmethyl) pyrimidine-4-carboxamide;
- 2-Amino-6-(2-furyl)-N-(3-(dimethylaminocarbonyl)benzyl) pyrimidine-4-carboxamide;
- 2-Amino-6-(2-furyl)-N-(2-pyridylmethyl) pyrimidine-4-carboxamide;
- 2-Amino-6-(2-furyl)-N-(4-pyridylmethyl) pyrimidine-4-carboxamide;
- 2-Amino-6-(2-furyl)-N-(2-methylbenzyl) pyrimidine-4-carboxamide;
- 2-Amino-N-(3-trifluoromethylbenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;

2-Amino-N-(1H-benzimidazol-2-ylmethyl)-6-(2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(3-pyridylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(3-methylbenzyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(3,6-dimethylpyridin-2-ylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(2-(2-thienyl) thiazol-4-ylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(2-thienylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(5-(2-pyridyl)-2-thienylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(5-methyl-2-trifluoromethylfuran-3-ylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(5-methylisoxazol-3-ylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(2-methoxy-6-methylpyridin-3-ylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(6-fluoro[1,3]benzodioxin-8-ylmethyl)-6-(2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(6-methylpyridin-3-ylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(3-indolylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(6-hydroxymethylpyridin-2-ylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(1-methyl-1H-imidazol-2-ylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(5-H-indolylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(2,3-dimethylindol-5-ylmethyl)-6-(2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(3-methyl-4-nitrobenzyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-methyl-N-(2-(2-pyridyl)ethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(2-methylindol-5-ylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-N-benzyl-6-(2-furyl) pyrimidine-4-carboxamide;  
 N-Allyl-2-amino-6-(2-furyl) pyrimidine-4-carboxamide;  
 (R)-2-Amino-6-(2-furyl)-N-(2-hydroxypropyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(6-indolylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(quinolin-8-ylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(2-(pyridin-2-yl)ethyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(2-chlorobenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(2-trifluoromethylbenzyl) pyrimidine-4-carboxamide;

2-Amino-N-([2,1,3]benzothiadiazol-5-ylmethyl)-6-(2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(isoquinolin-3-ylmethyl) pyrimidine-4-carboxamide;  
 1-(2-Amino-6-(2-furyl)pyrimidin-4-ylcarbonyl)-4-(2-pyridyl) piperazine;  
 2-Amino-6-(2-furyl)-N-(quinolin-2-ylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(benzothiazol-2-ylmethyl)-6-(2-furyl) pyrimidine-4-carboxamide;  
 (S)-2-Amino-6-(2-furyl)-N-(1-phenylethyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(4-chlorobenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(4-fluorobenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;  
 (R)-2-Amino-6-(2-furyl)-N-(1-phenylethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(4-methoxybenzyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(cyanomethyl)-6-(2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(4-methylbenzyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(1-phenylprop-1-yl) pyrimidine-4-carboxamide;  
 2-Amino-N-(3-fluorobenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(3-chlorobenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(3-methylphenyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(3-methylpyridin-2-yl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(3-phenylpropyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(4-amino-3-methylbenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-N-benzyl-6-(2-furyl)-N-methylpyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(5-methylpyrazin-2-ylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(1H-imidazol-2-ylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(1-n-propyl-1H-imidazol-2-ylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(2-bromobenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(6-bromopyridin-2-ylmethyl)-6-(2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(6-aminopyridin-2-ylmethyl)-6-(2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(2-furyl)-N-(3-(1H-imidazol-1-yl) propyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(1-ethyl-1H-imidazol-2-ylmethyl)-6-(2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(2-dimethylamino-6-methylpyridin-3-ylmethyl)-6-(2-furyl) pyrimidine-4-

carboxamide;

(R)-Methyl-2-(6-(2-amino-6-(2-furyl) pyrimidine-4-carboxamido)) phenylacetate;

(S)-Methyl-2-(6-(2-amino-6-(2-furyl) pyrimidine-4-carboxamido)) phenylacetate;

2-Amino-N-(2, 6-dichlorobenzyl)-6-(2-furyl) pyrimidine-4-carboxamide;

2-Amino-N-(3-methylpyridin-2-ylmethyl)-6-(thiazol-2-yl) pyrimidine-4-carboxamide;

2-Amino-N-(6-n-propylpyridin-2-ylmethyl)-6-(thiazol-2-yl) pyrimidine-4-carboxamide;

2-Amino-6-(5-methyl-2-furyl)-N-(2-trifluoromethylbenzyl) pyrimidine-4-carboxamide;

2-Amino-6-(5-methyl-2-furyl)-N-(2-pyridylmethyl) pyrimidine-4-carboxamide;

2-Amino-6-(5-methyl-2-furyl)-N-(1-methyl-1H-pyrrol-2-ylmethyl) pyrimidine-4- carboxamide;

2-Amino-5-bromo-6-(5-methyl-2-furyl)-N-(2-trifluoromethylbenzyl) pyrimidine-4-carboxamide;

2-Amino-N-(2-methylbenzyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;

2-Amino-N-(3-methylbenzyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;

2-Amino-N-(4-methylbenzyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;

2-Amino-N-(2-chlorobenzyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;

2-Amino-N-(3-chlorobenzyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;

2-Amino-6-(5-methyl-2-furyl)-N-(3-pyridylmethyl) pyrimidine-4-carboxamide;

2-Amino-6-(5-methyl-2-furyl)-N-(4-pyridylmethyl) pyrimidine-4-carboxamide;

2-Amino-N-(2-methoxybenzyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;

2-Amino-N-(3-methoxybenzyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;

2-Amino-N-(3-fluorobenzyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;

2-Amino-6-(5-methyl-2-furyl)-N-(3-trifluoromethylbenzyl) pyrimidine-4-carboxamide;

2-Amino-N-(6-hydroxymethylpyridin-2-ylmethyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;

2-Amino-N-(1,5-dimethyl-1H-pyrazol-3-ylmethyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;

2-Amino-6-(5-methyl-2-furyl)-N-(5-methylisoxazol-3-ylmethyl) pyrimidine-4-carboxamide;

2-Amino-6-(5-methyl-2-furyl)-N-(2-phenylethyl) pyrimidine-4-carboxamide;

2-Amino-6-(5-methyl-2-furyl)-N-(3-phenylpropyl) pyrimidine-4-carboxamide;

2-Amino-N-benzyl-N-ethyl-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;  
 (R, S)-2-Amino-6-(5-methyl-2-furyl)-N-(1-phenylpropyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(1,5-dimethyl-1H-pyrrol-2-ylmethyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;  
 (R, S)-2-Amino-6-(5-methyl-2-furyl)-N-(1-phenylethyl) pyrimidine-4-carboxamide;  
 (S)-2-Amino-N-methyl-6-(5-methyl-2-furyl)-N-(1-phenylethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(5-methyl-2-furyl)-N-(1-phenylprop-2-yl) pyrimidine-4-carboxamide;  
 2-Amino-N-isobutyl-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-N-hexyl-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-N-butyl-N-methyl-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-N-methyl-6-(5-methyl-2-furyl)-N-pentylpyrimidine-4-carboxamide;  
 2-Amino-N-benzyl-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(5-methyl-2-furyl)-N-phenylpyrimidine-4-carboxamide;  
 2-Amino-N-benzyl-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;  
 2-Amino-6-(5-methyl-2-furyl)-N-(1-methyl-1H-pyrazol-5-ylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(1-methyl-1H-pyrazol-5-ylmethyl)-6-(4-methylthiazol-2-yl) pyrimidine-carboxamide;  
 2-Amino-6-(4-methylthiazol-2-yl)-N-(pyridin-2-ylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-6-(4-methylthiazol-2-yl)-N-(2-trifluoromethylbenzyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(1,5-dimethyl-1H-pyrazol-3-ylmethyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;  
 2-Amino-6-(5-methyl-2-furyl)-N-(1-methyl-1H-pyrazol-3-ylmethyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(1-methyl-1H-pyrazol-3-ylmethyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;  
 N-(1,5-Dimethyl-1H-pyrazol-3-ylmethyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;  
 6-(5-Methyl-2-furyl)-N-(2-trifluoromethylbenzyl) pyrimidine-4-carboxamide;  
 N-Benzyl-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;  
 6-(5-Methyl-2-furyl)-N-(2-pyridylmethyl) pyrimidine-4-carboxamide;  
 N-(3, 6-Dimethylpyridin-2-ylmethyl)-6-(5-methyl-2-furyl) pyrimidine-4-carboxamide;  
 2-Amino-N-(1,3-dimethyl-1H-pyrazol-5-ylmethyl)-6-(5-methyl-2-furyl) pyrimidine-4-

carboxamide;

2-Amino-N-(1,3-dimethyl-1H-pyrazol-5-ylmethyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;

2-Amino-6-(5-methyl-2-furyl)-N-(6-methylpyridin-2-ylmethyl) pyrimidine-4-carboxamide;

2-Amino-6-(5-methyl-2-furyl)-N-(1-methyl-1H-pyrazol-4-ylmethyl) pyrimidine-4-carboxamide;

2-Amino-6-(4-methylthiazol-2-yl)-N-(pyrimidin-4-ylmethyl) pyrimidine-4-carboxamide;

2-Amino-6-(4-methylthiazol-2-yl)-N-(4-methylthiazol-2-ylmethyl) pyrimidine-4-carboxamide;

2-Amino-N-(1,5-dimethyl-1H-pyrazol-4-ylmethyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;

2-Amino-N-(1,3-dimethyl-1H-pyrazol-4-ylmethyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;

2-Amino-6-(4-methylthiazol-2-yl)-N-(pyridin-3-ylmethyl) pyrimidine-4-carboxamide;

2-Amino-6-(4-methylthiazol-2-yl)-N-(3-trifluoromethylbenzyl) pyrimidine-4-carboxamide;

2-Amino-N-(2-methylbenzyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;

2-Amino-N-(3-methoxybenzyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;

2-Amino-N-(3-methylbenzyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;

2-Amino-N-(3-fluorobenzyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;

2-Amino-N-(3-chlorobenzyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;

2-Amino-N-(6-methylpyridin-2-ylmethyl)-6-(4-methylthiazol-2-yl) pyrimidine-4-carboxamide;

2-Amino-6-phenyl-N-(2-trifluoromethylbenzyl) pyrimidine-4-carboxamide;

2-Amino-6-phenyl-N-(pyridin-2-ylmethyl) pyrimidine-4-carboxamide;

2-Amino-6-(2-methylphenyl)-N-(pyridin-2-ylmethyl) pyrimidine-4-carboxamide;

2-Amino-6-(4-methylphenyl)-N-(pyridin-2-ylmethyl) pyrimidine-4-carboxamide;

2-Amino-6-(3-cyanophenyl)-N-(pyridin-2-ylmethyl) pyrimidine-4-carboxamide;

2-Amino-6-(2-methylphenyl)-N-(3-methylpyridin-2-ylmethyl) pyrimidine-4-carboxamide;

2-Amino-6-(3-methylphenyl)-N-(3-methylpyridin-2-ylmethyl) pyrimidine-4-carboxamide;

2-Amino-6-(4-methylphenyl)-N-(3-methylpyridin-2-ylmethyl) pyrimidine-4-carboxamide;

2-Amino-6-(3-cyanophenyl)-N-(3-methylpyridin-2-ylmethyl) pyrimidine-4-carboxamide;

2-Amino-6-(3-methylphenyl)-N-(pyridin-2-ylmethyl) pyrimidine-4-carboxamide;

2-Amino-6-(3-methoxyphenyl)-N-(pyridin-2-ylmethyl) pyrimidine-4-carboxamide;

2-Amino-6-(3-methoxyphenyl)-N-(3-methylpyridin-2-ylmethyl) pyrimidine-4-carboxamide; and

2-Amino-N-(3-methylpyridin-2-ylmethyl)-6-phenylpyrimidine-4-carboxamide.